

Richmond Automobile News

CAR OF FUTURE MUST BE MUCH LIGHTER IN WEIGHT

Means Economy in Fuel, More Tire Mileage and Reduced Repair Costs.

MACHINES NOW TOO HEAVY

Require Engines of Great Horsepower to Drive Them, and Necessitates Endless Chain of Weighty Materials in Auto Construction.

By H. A. Tarranton, Member S. A. E.
One horse hitched to a delivery wagon seems to be able to pull that wagon and its load without much trouble. Double the size of the wagon and its load and you immediately see the need for hitching on another horse. As you increase the weight you increase the number of horses, because you know you need more power.

Two horses mean more hay, more oats—in other words, more fuel. Exactly the same conditions exist in the automobile field today with the exception, however, that we needlessly accept the "two-horse" load which calls for extra fuel. Briefly, our cars are too heavy.

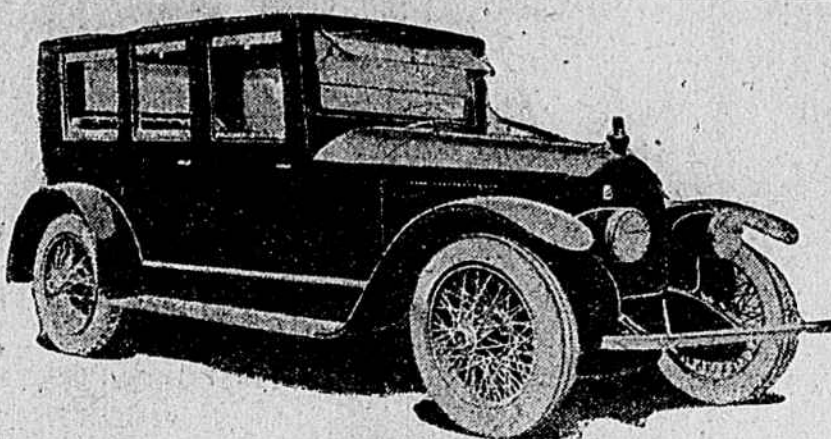
The future is going to see cars so much lighter in weight than present ones that the average fuel consumption will be at least thirty miles per gallon. In addition to fuel economy, the car of the future will give greater riding comfort, twice the tire mileage and half the repair expense.

Weight Twice Too Much.
We have cars today weighing around 2,700 pounds, giving from ten to fifteen miles per gallon. When live-passenger cars weighing half as much and giving less than half the fuel consumption, so long as we insist upon heavy cars we must accept heavy fuel, tire and repair costs. The future will see all of this changed. We are about to enter upon a lightweight car era, which will sweep old ideas of weight from the horizon.

Engineers know that weight, needless weight, stands in their way of producing the thirty-mile per gallon car, but they also know that there are methods by which the weight can be reduced and the car made better in every respect. They have the knowledge of lighter materials which they can scientifically employ. They have the knowledge gained by airplane practice which will enable them to get weight reduction by changing the design of the parts. They have the vast knowledge of alloys far lighter and stronger than metals now generally used in automobile construction. Added to these they have to consider some basic engineering laws which have been neglected or overlooked as a result of development along these lines will mean a load so light that only "one horse" will be needed to pull it around to the satisfaction of the owner and the "horse."

All Parts to Be Lighter.
The automobile's horse is the engine, and its size, weight and power depend on the total weight of the vehicle and the passengers plus the work it is expected to do. As the weight is increased, the engine must be made lighter, frames, radiators, wheels, bodies—all parts—must be reduced in weight, and there is no going to the need for the heavy engine to get the same results. Since there is less work for it to do, it will be reduced in size and weight and still we will have the same car performance that we had before. But above all, with smaller size, less lower weight, together with lower weight of the vehicle, will mean less fuel and tires that will last for 20,000 miles.

Since the riding qualities of a car have nothing to do with its total weight, but are based upon the dispositions of that weight, we can readily see that we can obtain the same riding qualities in the light vehicle that we have in the heavy one—in fact, the lighter vehicle can be made even better riding. I recall a ride over rough



Kissel Urban Sedan.

roads in a cyclecar weighing less than 1,000 pounds.

This car was more comfortable to ride in than a 6,000-pound touring car. Instead of hitting bumps and holes and flying off the road, the body deflected but a little. I am not recommending the cycle as a vehicle, but it is easy to see that the riding qualities were obtained in another way than by the use of heavy construction.

Heavy Engine Now Required.

At the present time our cars have heavy steel forgings and heavy cast iron parts. The use of heavy parts all through the chassis naturally means a large and heavy engine to pull that load. Those heavy parts do a certain work and because they themselves are heavy, other heavy ones are needed to get a proper balance of design.

The future car will do away with all the heavy parts, the beginning of the design will be a lightweight part and work will start from it to another lightweight part and so on until the vehicle is finished. Lighter metals, such as aluminum and pressed steel—perhaps new metals—will be used, because they will give the desired strength and safety without the weight.

Sparks From Motorland

The Terminal Motor Company, Ninth and Cary Streets, received last week five carloads of Peerless 1920 cars of different models, which are on display in their salesrooms.

J. A. Newton, secretary and treasurer of the Capitol Motor Corporation, 315 West Broad Street, has returned from a visit to his home in South Hill, Va.

Alsop Motor Corporation, 114 West Broad Street, announces the following

A Guide To Christmas Giving

A Nice Automobile

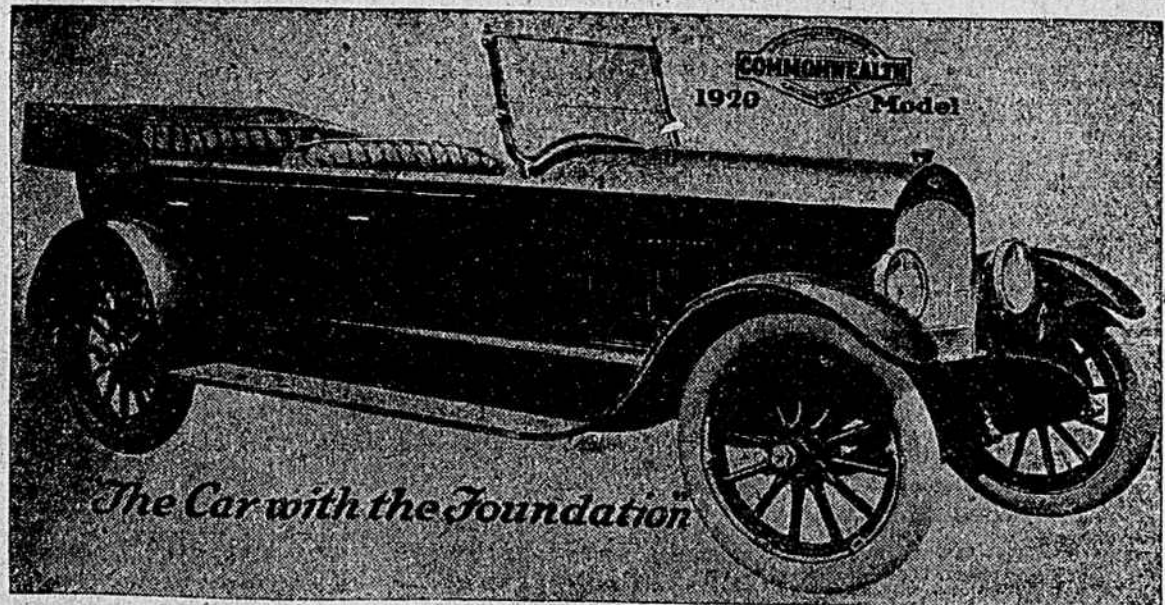
Old Tires Made New
Vulcanizing.
BELL 2-IN-1 TYRE CO., Inc.,
600 West Broad Street.
Distributors Miller Tires.

BUSINESS OPPORTUNITY
Eastern Tire Manufacturing Company desires to get in touch with an individual or organization with sufficient capital and ability to give the first-class representation in Richmond and vicinity.

Line is of the highest quality, with splendid reputation, backed by strong advertising, and is profitable to handle.

Applications should state capital available, present business connections and other details. Name place where interview can be held. All replies will be treated in strict confidence. Address L-546, care Times-Dispatch.

COMMONWEALTH CAR



The Car with the Foundation

It's Alive With Power—

POWER—that's what makes an automobile step out and discount the miles and the hills, taking you there and back on your scheduled time—or ahead of it.

It is power that gets you quickly out of traffic jams, and makes impassable roads passable.

Just Received Five Carloads for Immediate Delivery.

Armstrong Motor Co.

DISTRIBUTORS MONITOR CARS AND STANDARD TIRES,

1813 West Broad Street, Richmond, Virginia.

AMERICAN CHILDREN NEED MORE PROTECTIVE LAWS

Miss Jane Addams Indorses Plan for Nation-Wide Observance of Child Labor Day.

That the children of this country are in need of further protective legislation is pointed out by Miss Jane Addams, in a letter to the National Child Labor Committee, in which she indorses the plan for a nation-wide observance of Child Labor Day. The committee has designated Sunday, January 25, for its observance in churches, January 24 in synagogues and January 26 in schools and clubs. In approving this plan Miss Addams says:

"Because certain States have secured satisfactory legislation for the protection of children, it is easy to assume that it is no longer necessary to push child labor reform and similar measures, forgetting the wretched conditions still obtaining in vast areas of the United States. One day set aside for the discussion of the needs of children, viewing the subject in its highest moral aspects and urging a furtherance to child welfare as a religious duty would, to my mind, be most valuable."

Secretary of the Interior Franklin K. Lane has written a letter to the committee indorsing the plan. He says: "I think it most appropriate that you should observe Child Labor Day in January. Child labor will soon be a thing unknown. The child will be given its chance to grow."

MONEY FROM BIVALVES

Oyster Catchers Reaping Their Greatest Harvest, Shuckers Making Big Wages—The Banner Period.

ONANCOCK, VA., Dec. 6.—Last year was the banner year for the oyster industry in the Crisfield district, and the last two weeks in November were the banner period of all others.

In the number of bushels caught, the number of gallons shipped and the amount of money handled those two weeks, exceeded any like period in the history of Crisfield. Eight car loads

25 to 45% off on all standard makes of tires and tubes. Distributors Howe, Kokomo and National Tires.

NATIONAL RUBBER CO.
Established 1902
127 W. Broad St.
Richmond, Va.

Six Virginia Branches at your service
Richmond, Norfolk, Petersburg, Lynchburg, Roanoke and Bristol.

VELIE BILTWELL SIX

Velie
National Motor Co.
Distributors,
1629 West Broad Street.
Phone Randolph 478.

of shucked oysters were shipped per day, and on an average there were 2,600 gallons to the car.

The prices have been \$1.65 for standard and \$1.90 for select, and it is estimated that this business alone amounted to \$750,000 in the two weeks named.

The shuckers are this season reaping a harvest. The stock being in good condition the average shucker easily makes from \$25 to \$35 per week.

Old Tires Made New
Vulcanizing.
BELL 2-IN-1 TYRE CO., Inc.,
600 West Broad Street.
Distributors Miller Tires.

Briscoe, Paterson and Premier Automobiles

CAPITOL MOTOR CORPN.

Factory Representatives,
319 West Broad Street.

PAIGE

THE MOST BEAUTIFUL CAR IN AMERICA

The new series "Linwood" model was designed for five, full grown, adult passengers. That means roominess—the first essential element in motor car comfort. And what a blessing it is on those long trips of a hundred miles or more.

Why not arrange with our dealer for a demonstration today? His allotment of cars is limited and it is the part of wisdom to place your order as early as possible.

PAIGEDETROIT MOTOR CAR COMPANY, DETROIT, MICH.

MARKEL, Inc.

Distributors Virginia and North Carolina,
Five Twenty-One East Main,
Phone Randolph Four Eight Eight Six.
Immediate Deliveries.

Oldsmobile, 8-Cyl., 7-Pass.	\$2035.00
Oldsmobile, 6-Cyl., 5-Pass.	\$1550.00
Saxon, 6-Cyl., 5-Pass.	\$1395.00
Saxon, 6-Cyl., 5-Pass. (wire wheels)	\$1495.00

Call Us for Demonstration.

D. A. PRENTISS

310 West Broad Street.

Phone Ran. 410.



The Sign of Good Trucking Service:
Manufacture—Operation—Maintenance

The Firestone Ship by Truck Bureau 808 West Broad Street. Phone Randolph 213.

Cut Out and Save This Truck Route Schedule

(Corrected to December 6th. Discard former schedules.)

ROUTE 1—Richmond to Petersburg. ROUTE 2—Richmond to Old Church and Apperson's Store. ROUTE 3—Richmond to Powhatan.

Truck Transportation Co.'s Operating Out of Richmond

Richmond-Petersburg Transfer Co., Petersburg, Va. Ran. 213. P. G. Braman, Tunstalls, Va., R. F. D. No. 1. Phone Madison 406. C. C. Worsham, Powhatan, Va. ROUTE No. 1—Daily. ROUTE No. 2—Daily. ROUTE No. 3—Daily.

Anywhere—Any Time

Smith & Hicks, 12 North Fifteenth Street, Richmond. Mad. 971. National Transfer Co., 210 North Madison Street. Rand. 1080. Wyatt's Transfer, 3 Shockoe Slip. Mad. 579. Chas. B. Murray, 3006 1/2 P Street, Richmond. Rand. 3245. Beazley Transfer Co., 118 N. Seventh. Rand. 4014. W. S. Collins, 2321 Floyd Ave. Boule. 223.

There is a Firestone Truck Tire for every load, road and condition of service.

Firestone